THE PROVINCE OF
NEWFOUNDLAND,
CANADA

# DEPARTMENT OF FISHERIES

# ANNUAL REPORT
# 1985/86

**HONOURABLE T. RIDEOUT**
**Minister of Fisheries**

FILE NO.
130-10

GOVERNMENT OF NEWFOUNDLAND AND LABRADOR
DEPARTMENT OF FISHERIES

OFFICE OF THE DEPUTY MINISTER

ST. JOHN'S, NFLD.
A1C 5T7

June 15, 1987

Honourable Tom Rideout
Minister
Department of Fisheries
Government of Newfoundland & Labrador

Mr. Minister:

I have the honour to present the Annual Report of the Department of Fisheries for the period April 1, 1985 to March 31, 1986.

Respectfully submitted,

R. A. (Ray) Andrews
Deputy Minister

TELEPHONE (709) 576-3707

TELEX 016-4732

# DEPARTMENT OF FISHERIES

# ANNUAL REPORT 1985/86

90-02578/

# TABLE OF CONTENTS


| | PAGE |
|---|---|
| 1.0 The Fishing Industry in Newfoundland & Labrador 1985/86 | 1 |
| 2.0 Government Objectives 1985/86 | 6 |
| 3.0 Overview of Dept. Initiatives | 7 |
| 4.0 Policy Planning Branch | 10 |
| 4.1 Planning Services Division | |
| 4.2 Field Services Division | |
| 4.3 Administration Services Division | |
| 5.0 Facilities Services Branch | 15 |
| 5.1 Engineering Services Division | |
| 5.2 Facility Operations Division | |
| 6.0 Industry Support Services Branch | 27 |
| 5.3 Processing Operations Division | |
| 5.4 Marketing Services Division | |
| 5.5 Harvesting Operations Division | |
| 7.0 Fisheries Loan Board | 42 |
| 8.0 Fishing Industry Advisory Board | 47 |

## 1.0 OVERVIEW OF THE 1985/86 FISHERY

A number of favourable trends affected the fishery in Newfoundland and Labrador throughout 1985. Increased consumption of fish products on the U.S. market caused largely by a more health conscious lifestyle saw demand for fish products increase. A decline in interest rates and a favourable depreciation of the Canadian dollar vis-a-vis the U.S. dollar strengthened our local fishery. Total provincial landings in 1985 reached 469,184 metric tonnes with a total value of $167,593,000.

Total groundfish landings in 1985 amounted to 387,129 metric tonnes valued at $121,085,000. Pelagic and other finfish landings totalled 64,114 metric tonnes with a value of $13,311,000 and Shellfish total landings for 1985 were 17,941 metric tonnes with a value of $32,477,000.

There were 26,615 licensed fishermen in the province in 1985. Of this total, 13,324 were full time fishermen and 13,291 were part-time. There were 15,758 fishing vessels in the province in 1985 with 8,035 being less than 20' in length most of which were owned by part-time fishermen. The number of vessels over 65' was 98 with 1,314 vessels between 35' and 65' and 6,311 vessels between 20' and 31'.

Inshore fishermen, especially along the Northeast coast experienced low groundfish landings throughout 1985. Continued declines in landings from the east coast stocks and the continuing absence of squid impacted negatively on many inshore fishermen's incomes. The inshore cod fishery from NAFO areas 2J and 3KL had a shortfall of over 20,000 metric tonnes. Cold water conditions in 1985 are believed to be a major factor affecting the inshore cod migration.

While the trawlermen's strike kept the offshore fleet at dockside for the first five weeks of 1985, offshore landings were much improved over 1984. Cod landings were up 18 percent to 104,000 tonnes and flatfish landings increased by 27 percent to 56,000 tonnes.

**TABLE 1: REPORT OF LANDINGS & LANDED VALUES OF COMMERCIAL SEAFISH - NEWFOUNDLAND PROVINCE TO DECEMBER 31, 1985 -**

(Metric Tonnes - Round Weight & Value in $'000)

| | Quantity to Date | Value to Date |
|---|---|---|
| | 1985 | 1985 |
| Cod | 271,380 | 91,916 |
| Haddock | 2,883 | 966 |
| Redfish | 28,416 | 6,097 |
| Halibut | 791 | 1,484 |
| Flounders & Soles | 63,771 | 15,857 |
| Greenland Turbot | 14,762 | 4,653 |
| Pollock | 2,534 | 357 |
| Hake | 848 | 144 |
| Catfish | 1,725 | 326 |
| Other | 19 | 5 |
| Groundfish - Total | 387,129 | 121,805 |
| Herring | 11,819 | 1,448 |
| Mackerel | 15,749 | 1,884 |
| Eels | 12 | 18 |
| Salmon | 865 | 3,639 |
| Skate | 33 | 2 |
| Smelts | 18 | 16 |
| Capelin | 35,412 | 6,016 |
| Char | 158 | 179 |
| Trout | 36 | 47 |
| Other | 12 | 62 |
| Pelagic & Other Fin Fish - Total | 64,114 | 13,311 |
| Clams | X | X |
| Mussels | - | - |
| Scallops | 3,018 | 3,533 |
| Squid | 399 | 115 |
| Lobster | 2,956 | 17,807 |
| Shrimp | 3,568 | 4,127 |
| Crab | 8,000 | 6,895 |
| Molluscs & Crustaceans - Total | 17,941 | 32,477 |
| GRAND TOTAL | 469,184 | 167,593 |

X - Less than ½ Metric Tonne.

All figures are preliminary and subject to revision.
This table includes data for Western Newfoundland & Southern Labrador portions of the Gulf Region.

Fisheries Statistics & Systems Branch
Department of Fisheries & Oceans
St. John's, Newfoundland

Offshore northern cod landings, at 71,000 tonnes were only 400 tonnes higher than the 1984 level.

The processing sector in 1985 was comprised of 220 plants with 75 engaged in frozen groundfish production and the export value of products produced in these facilities was approximately $52,000,000. The processing sector accounted for approximately 8,000 person years of employment. This translated into approximately 24,000 part time and full time employees throughout the year.

Although the main emphasis throughout 1985 was on groundfish production, principally cod, a number of plants were engaged in the processing of pelagic and shellfish species. In the majority of cases, pelagic and shellfish processing was integrated with groundfish processing.

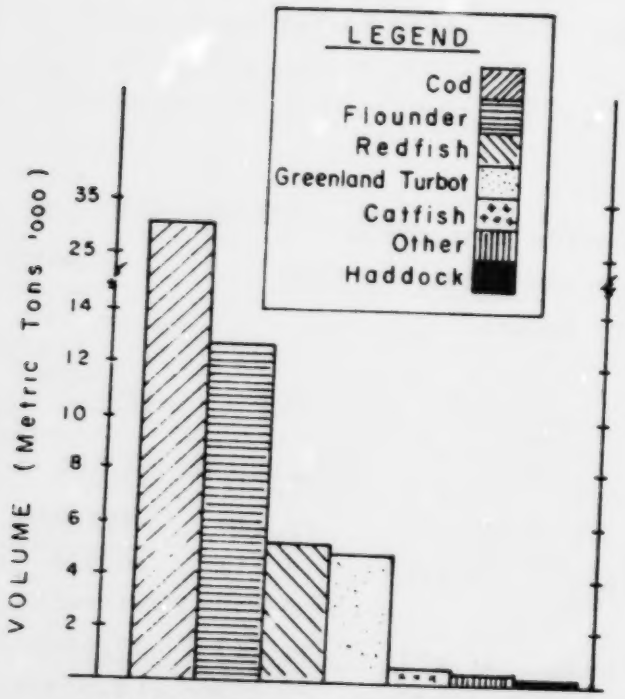
Frozen groundfish products, most notably fillets and blocks, account for roughly two-thirds of total production, with the fortunes of the entire processing sector tied to prevailing market conditions for those products in the United States. In 1985, fillet shipments were down by 2 percent while block shipments increased by 17 percent over 1984 values.

**FROZEN GROUNDFISH PRODUCTION**
**BY TYPE - NEWFOUNDLAND - 1981 TO 1985**
**(Metric Tonnes)**

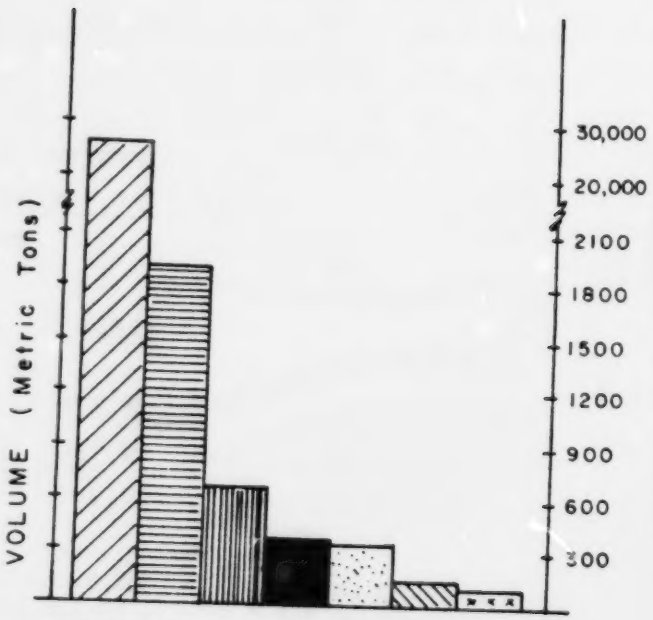
| | 1981 | 1982 | 1983 | 1984 | 1985 |
|---|---|---|---|---|---|
| Cod Fillet | 24,475 | 34,609 | 30,017 | 35,789 | 32,032 |
| Flounder Fillet | 15,950 | 15,059 | 10,639 | 10,348 | 12,667 |
| Other Fillet | 17,300 | 13,676 | 10,781 | 10,652 | 10,925 |
| Cod Block | 26,925 | 28,638 | 36,682 | 24,117 | 27,696 |
| Other Block | 3,200 | 2,924 | 2,972 | 2,753 | 3,615 |
| Total | 87,850 | 94,906 | 91,091 | 83,659 | 86,935 |

Source: Fisheries and Oceans Canada

Frozen Fillet and Block Production by Species, 1985




FROZEN FILLET PRODUCTION BY SPECIES.




FROZEN BLOCK PRODUCTION BY SPECIES.

The increase in frozen block exports reversed the trend of the past four years as U.S. demand and prices improved for cod blocks. A reduction in supplies from Canada and the Scandinavian countries pushed Boston market prices to all time highs by the end of 1985.

While the higher prices will probably lead to increased production of frozen blocks in 1986, it is not likely that the industry will revert to its former reliance on this product group. Recent strides made in improving product quality are gradually moving Newfoundland processors out of the middle quality, more price sensitive, segment of the U.S. market and into that part of the food service sector which includes up-market chain restaurants.

Saltfish production in 1985 was down by about 15 - 18 percent from 1984, but both producer and export prices improved throughout the year and this recovery is expected to carry over into 1986. European demand is strongest for high quality, medium and large sizes, but somewhat poorer for the smaller grades that are marketed in the Caribbean.

Capelin roe sales are a significant contributor to revenues of seasonal plants and the profits generated, in good years, from a major source of working capital for the remainder of the processing season. Relative to 1984, capelin roe production for the Japanese market was disappointing with market prices of U.S. $1,050 per ton, or about U.S. $400 less than in 1984. Prospects for 1986 are much better, however.

Note: This is an overview of the 1985 fishing industry by the Department of Fisheries. The information contained has been extracted from 'The Economy 1986' published by Cabinet Secretariat, Executive Council, March 25, 1986.

## 2.0 GOVERNMENT OBJECTIVES - 1985/86

A primary objective of the Government of Newfoundland and Labrador is to ensure that the fish resources adjacent to the Province are allocated in a way that will permit areas with an historical dependence on these resources to reap the maximum potential economic benefit.

To help achieve this objective the Provincial Government has outlined a series of objectives to guide planning and development in the fishery.

These are:

1. To acquire a greater degree of Provincial control in the area of fisheries management.

2. To lengthen the season of both the inshore fishery and the dependent processing sector.

3. To develop the harvesting sector as a profitable and commercially viable entity in its own right.

4. To develop the potential that exists in Newfoundland and Labrador to play a leading role in Canadian fisheries technology.

5. To develop an internationally competitive processing sector and to increase employment through the expansion of secondary processing.

It is against this broad policy background that the Department's policy program and project initiatives are designed and implemented.

## 3.0 POLICY CONSIDERATIONS - 1985

The Government of Newfoundland and Labrador has sought, through constitutional reform, the establishment of concurrent jurisdiction with the Federal Government over fisheries. While constitutional reform has not yet been achieved in the fisheries sector, the Government of Newfoundland and Labrador has continued to seek full participation in broad policy issues and to propose policy initiatives consistent with the Province's broader objectives for the development of the fishing industry.

The Department made submissions to a number of Royal Commission reports such as: The Royal Commission on Seals and Sealing in Canada; Royal Commission on Employment and Unemployment and the Federal Commission of Enquiry on Unemployment Insurance. Some of the major policy issues of 1985/86 involved the licensing of factory freezer trawlers, the continued development of the Middle Distance Fishing Fleet, the Northern Cod Allowance for Inshore fixed gear and Bilateral trade agreements between Canada and Japan, USSR and the European Economic Council.

Discussions were held with the federal Department of Fisheries and Oceans, often in a multilateral forum with the Atlantic Provinces, on a number of important issues which impact upon the Province's fishery policy objectives. Some of the more important issues involved the Atlantic Groundfish Management Plan, Atlantic Salmon Management, Enterprise Allocations in the Offshore Fishery, the Resource Short Plant Program and over-the-side over-the-wharf sales. There was no change in policy, from 1984/85, with respect to these issues, although there appeared to emerge an agreement in principle on the movement towards the leasing of enterprise allocations to the offshore fleet. The Department continued to support the Resource Short Plant Program guidelines as laid down by the Task Force on Atlantic Fisheries.

The Government of Newfoundland and Labrador, especially through the Department of Fisheries, continued to voice the concern that substantial portions of the contiguous fishery resources are not being utilized fully to the benefit of Newfoundland, and to other parts of Canada. Foreign fishing outside 200 miles has prevented the full restoration of the Grand Banks cod stock, and stocks in the Flemish Cap area. The Province has stressed the necessity of extending the Canadian exclusive economic zone as a means of ensuring the conservation of fish stocks both inside and outside 200 miles. The Province continued to oppose the foreign allocation of non-surplus stocks within 200 miles in 1985.

On September 20, 1985, the Minister announced a program towards the development of a middle sized fleet of vessels termed Middle Distance and designed to revitalize a Nfld. based fixed gear fishery with inshore and offshore capabilities. The introduction of this type of vessel represents a viable option to simultaneously improve the economic viability of the industry while maintaining a relatively high level of employment and providing a good annual income for fishermen. The middle distance fishing fleet refers generally to vessels in the 65-120' category with the capability to fish out to at least 200 miles. They can deliver excellent quality and usually larger fish for which there is market preference. Market prices for middle distance caught fish are generally higher while production costs are lower; these vessels can be deployed on a year round basis and longlining is an energy efficient method of harvesting.

It is estimated that in 1985, foreign fleets took approximately 86,000 tons of cod and flounder from the Grand Banks compared to approximately 145,000 tons of Canadian harvest in the same area. This volume of fish, if landed and processed in Canada, could provide employment for about 2,500 Canadians, and sale of about $100 million for Canadian processing Companies. A solution to the foreign over-fishing problem on the 'Nose' and 'Tail' of the Grand Banks remains a major concern to the Province.

On August 5, 1985, petitions were filed with the international trade commission and the Department of Commerce in the United States seeking countervailing duties against exports of Atlantic Canada whole and filleted groundfish. The Department of Fisheries co-ordinated the provincial response and arguments against a duty on fresh fish.

Through 1985/86 the provincial Department of Fisheries was engaged in a number of international trade negotiations involving Newfoundland fish products. On a local level a review of our fish plant licensing policy was carried out. A large number of capital works projects were conducted during 1985/86 with the largest involving $1,200,000 spent on a new Marine Service Centre built in Triton, Green Bay, equipped wi th a 150 ton travel lift. The Fisheries Loan Board approved a total of 699 loans to provincial fishermen with a total cost of approximately $7.8 million and a loan amount of $6.3 million.

## 4.1 1985/86 ACTIVITIES - PLANNING SERVICES

Projects

In 1985 the U.S. Dept. of Commerce imposed a countervailing duty on fresh Atlantic Groundfish. The Planning Services Division was responsible for co-ordinating the official government response to this duty.

A review of Fish Plant Licensing policy was carried out during 1985/86. This project included a review of the history of fish plant licensing throughout the province in order to determine the wide range of social issues, government policy and community development issues which affect our licensing policies.

The Planning Services Division was involved in a number of international issues involving Canadian Trade agreements. Some of the areas of concern were NAFO; Bilaterals; Canada/EEC; Canada/USSR and Canada/Japan.

A study was conducted on expanded initiatives for developing a fleet of Middle Distance Longliners. A major emphasis of this project was aimed at the development of presently underutilized species.

An operational review of the provincial longliner fleet (35'-65') examining the overall condition and various characteristics of the fleet was conducted in 1985/86. The purpose of this review was to determine future fleet requirements and how the Department will respond to these requirements.

A number of Royal Commission reports were ongoing during 1985/86. The Planning Services Division was responsible for co-ordinating the Department of Fisheries submission to the Royal Commission on Seals and Sealing; the Royal Comnmission on Employment and Unemployment and the Federal Commission of Enquiry

on Unemployment Insurance.

The Planning Services Division is responsible for providing financial research and analysis support for the Department. A number of projects were carried out in this respect during 1985/86:

- the assessment and evaluation of loan guarantee proposals and a subsequent follow-up of those approved. This involved considerable liaison with the Departments of Finance and Development and Tourism, along with meetings between Company Principals, bank officials and on-site visits.

- the financial analysis section, along with Accounts, developed a new accounting system for the Northern Labrador Plants.

- a financial assistance program was developed, in conjunction with RAND, for various aquaculture projects which exist throughout the Province.

- financial activities dealing with the middle distance vessels were carried out by the financial analysis section of Planning Services.

A number of discussion papers were developed during 1985/86 by Planning Services. Some of the major papers involved: Communications Policy; International Overviews; Incentive financing; Fisheries Industrial Development Corporation of Newfoundland and Labrador and the Middle Distance fishing effort.

A review of individual applications under the Canadian Job Development Strategy was conducted and a response was directed toward the co-ordinating agency indicating particular concerns or requirements. A review of fisheries related funding proposals submitted by industry to Government and related agencies was carried out during 1985/86.

The Planning Services Division is responsible for program review and evaluation. In 1985/86, an evaluation and assessment of six department programs was undertaken.- Recommendations are made for continuation, amendments to and delivery of each program.

The Planning Services Division is responsible for the public information/public relations role of the Department. Many of the requests for information on a variety of subjects related to the Fishery are answered by this division or channelled out to the appropriate personnel. Planning Services handles all publicity for the Dept. of Fisheries, including liaison with the electronic and printed media. The Dept. Annual Report and various other technical and professional reports are produced in association with resource people.

The flow of printed information in the form of journals, periodicals and newsletters are co-ordinated through this division, which is also responsible for the circulation of all these items and the collection of these materials in the Departmental library.

## 4.2 FIELD SERVICES DIVISION

The Field Services Division provides communication and liaison between the Department and the industry at large through decentralized field service offices. The Division also provides a

Support Service on an ongoing basis to all other branches of the Department in carrying out their programs in the field.

A. Office Locations

(1) Regional Offices staffed by Regional Supervisors are located at Port Saunders, Gander, Bonavista, Harbour Grace, Grand Bank, Port aux Basques and Happy Valley.

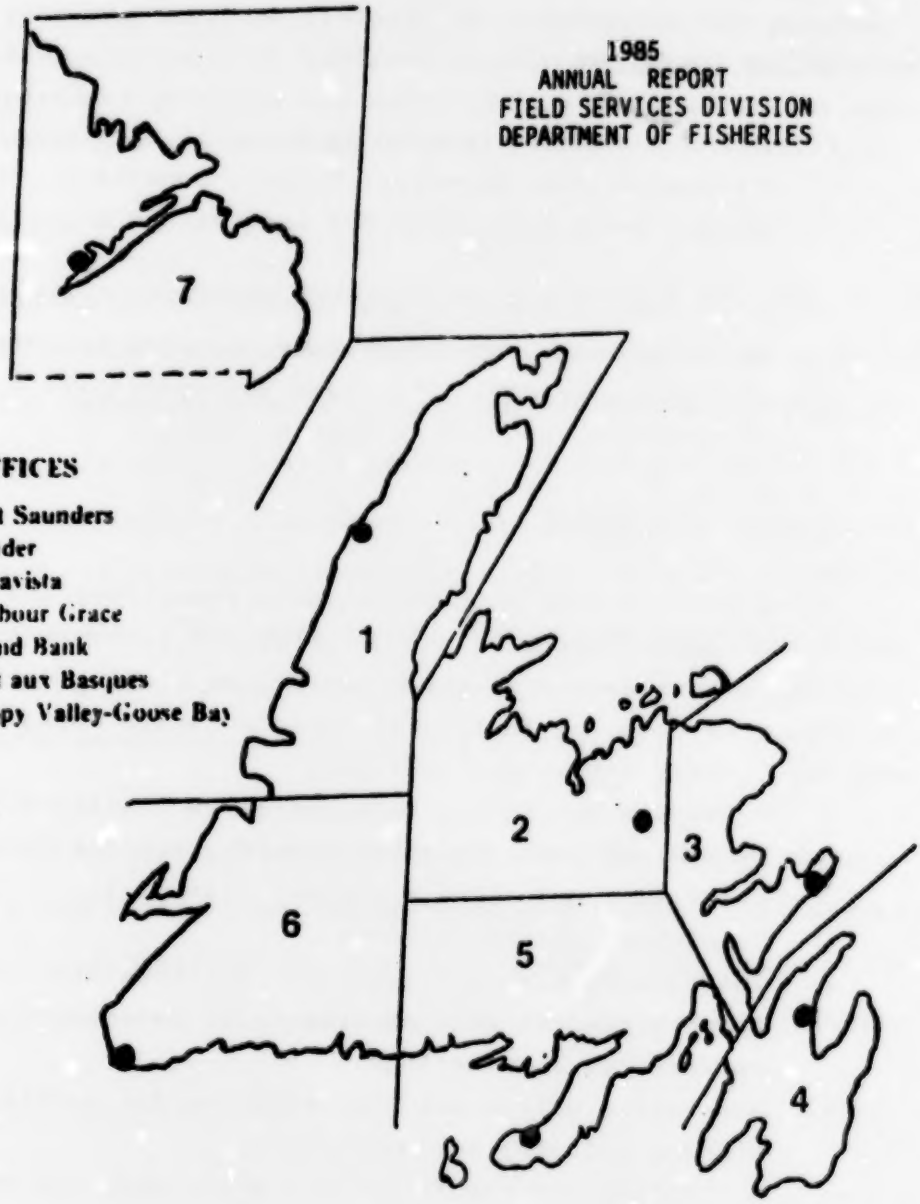
(2) Field Representatives are located at St. Anthony, La Scie, Harbour Grace, Marystown, Lourdes and Mary's Harbour, Labrador. The Field Representative position at Wesleyville remained vacant in 1985.

B. General Activities

Field Staff worked with Fishermen's Committees and Regional Development Associations in the planning and implementation stages of projects such as the construction of new fishing facilities and the repair of existing facilities through Canada Works and other programs. Other activities included:

- Providing up to date information on fishing activities around the Province through Weekly Reports and Seasonal Overviews. Maintains a current list of all Fishermens Committees in the Province.
- Interaction with Fishermen's Committees and Development Associations as well as organizing regional fisheries conferences and meetings.
- Monitoring prices paid to fishermen for lobster for the Fishing Industry Advisory Board.
- Monitoring and reporting on fishing gear and equipment losses due to storms, ice, whales, etc.
- Participating in fisheries information functions held by various schools.
- Gathering information on fishing vessel loans.
- A survey of 1984 catch failure relating to fishermen and plant workers U.I.

1985
ANNUAL REPORT
FIELD SERVICES DIVISION
DEPARTMENT OF FISHERIES




**REGIONAL OFFICES**

**Region 1 — Port Saunders**
**Region 2 — Gander**
**Region 3 — Bonavista**
**Region 4 — Harbour Grace**
**Region 5 — Grand Bank**
**Region 6 — Port aux Basques**
**Region 7 — Happy Valley-Goose Bay**

C. Loan Board Support

Numerous investigations and field reports were completed in response to applications to the Fisheries Loan Board for loans and bounties. The Division provided these reports in support of the Board's activities on an ongoing basis. Field Staff also assist the Board with the inspection of small fishing vessels for bounty purposes.

D. Inshore Fish Distribution Program

Although directly attributable to the program fish transfers were down considerably in all areas, however, many of the fish transfers and arrangements now in place resulted from the network of contacts previously established by the Program. Throughout the season the program informs fish processors and fishermen of ongoing harvesting and processing activity and provides information to the Department on the need for co-ordinating the placement of vessels in over-the-side and over-the-wharf sales programs.

4.3 ADMINISTRATIVE SERVICES DIVISION

The primary mandate of the Administrative Services Division is to provide financial and personnel management services to the Department. Specifically, the Division:

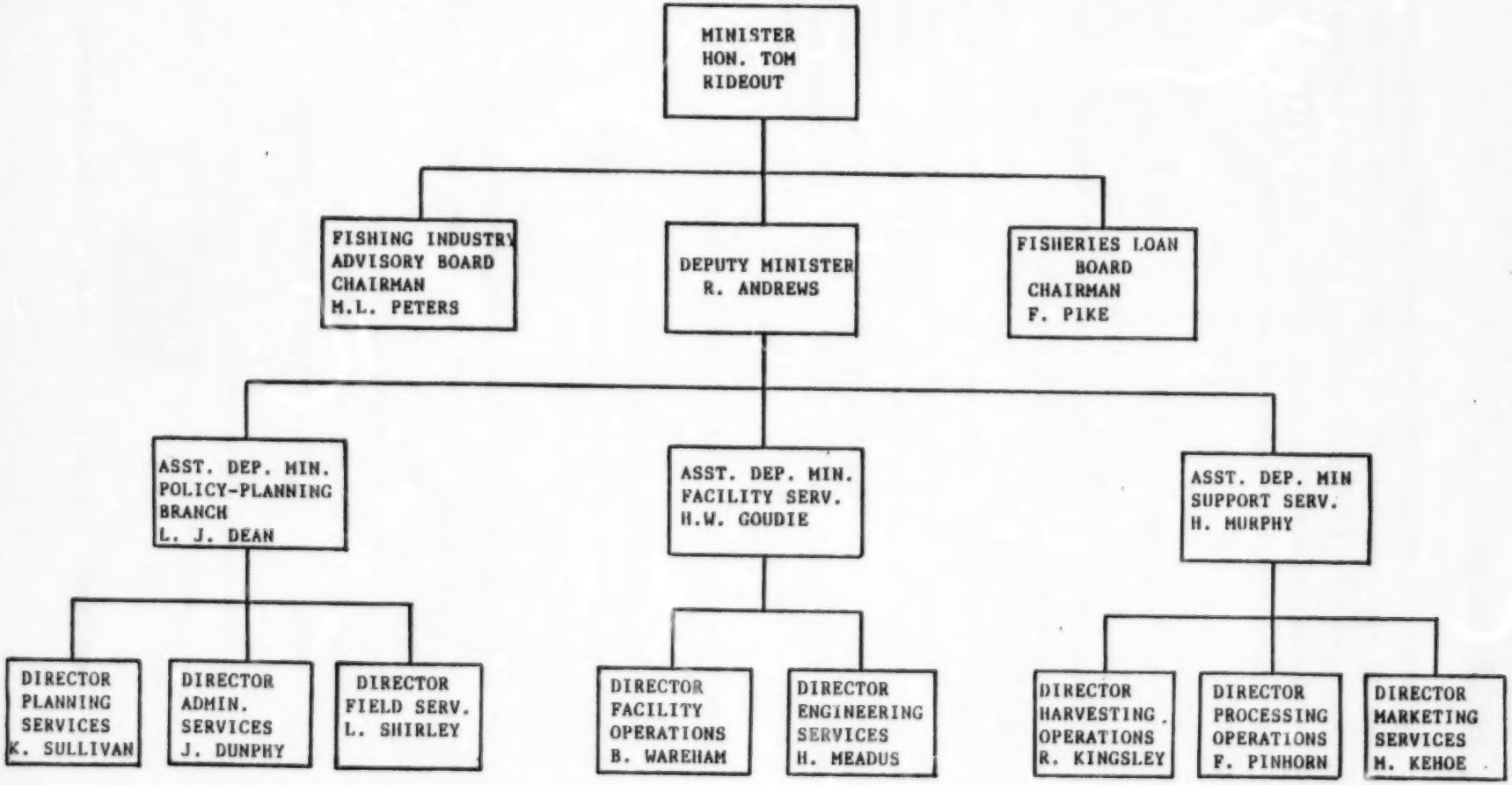
- develops and maintains appropriate accounting systems to facilitate all financial transactions of the Department.

- co-ordinates all departmental interaction with Treasury Board on budgetary and staffing matters, including preparation of the annual/interim budget;

- co-ordinates departmental interaction with the Public Service Commission on staffing matters including staff training;

- exercises responsibility over the departmental registry.

DEPARTMENT OF FISHERIES - ORGANIZATION CHART*



## 5.0 FACILITIES SERVICES BRANCH

Facilities Services Branch is composed of two divisions, the Engineering Services Division and Facility Operations.

## 5.1 ENGINEERING SERVICES DIVISION

The total budget for the Engineering Services Division for the past fiscal year 1985-86 was approximately $4,700,000 with new capital works including capital grants comprising approximately $3,000,000 of this budget.

There were approximately 100 capital works projects carried out in 1985/86, the largest project being at Green Bay where approximately $1,200,000 was spent constructing a Marine Service Centre building. The building at Green Bay is the larger of the service centre buildings and is the only one in the Province capable of housing a 150 ton straddle crane.

The capital works sub-head consist of the following divisions:

(1) Fish Handling Facilities - provides for the construction of new fish-handling and fishermen's facilities, and the upgrading of older facilities. Projects carried out under this sub-head in 1985-86 were:

| | | | |
|---|---|---|---|
| Fox Island River | - Upgrading of plant | - | $14,998 |
| Smokey | - Generator Shed Facility | - | 28,990 |
| Branch | - Electrical Upgrading | - | 39,000 |
| Trout River | - Upgrade Salting Shed | - | 6,200 |
| Campbellton | - Water Line to Facility | - | 7,000 |
| Hermitage | - Install New Drainline | - | 3,500 |
| Fox Island River | - Construct Office | - | 500 |
| Rocky Harbour | - Electrical Upgrading | - | 11,300 |

(b) Ice Making Facilities - provides ice-making facilities at strategic locations throughout the Province. Projects carried out under this sub-head in 1985-86 were:

| | | |
|---|---|---|
| Nain | - Extension to Ice Tower | - $5,109 |
| Makkovik | - Extension to Ice Tower | - 9,560 |
| Belleoram | - Ice Making Facility | - 7,500 |
| Lumsden South | - Construct New Ice Tower | - 17,460 |
| Lumsden South | - Electrical & Mechanical Upgrading | - 17,000 |

(c) Cooling Facilities - provides baited-trawl holding facilities and baited-trawl units at various locations around the Province. Projects carried out under this sub-head in 1985-86 were:

| | | |
|---|---|---|
| Garnish | - B.T. Facility | - $1,835 |
| Cripple Cove | - Holding Facility & Unit | - 2,460 |
| Aquaforte | - Installation of B.T.U. | - 335 |
| St. Lawrence | - B.T.U.Compressor | - 884 |
| Gaultois | - B.T.U. | - 8,602 |
| Lark Harbour | - B.T. Facility | - 85,000 |
| Margaree | - B.T. Facility | - 120,000 |
| Hawkes Bay | - Upgrading Regrig. Equip. | - 10,900 |
| Harbour Breton | - Ventilation Fans | - 3,000 |
| Little Harbour East | - Ventilation Fans | - 3,000 |
| Burnt Islands | - Ventilation Fans | - 3,000 |
| Baine Harbour | - Ventilation Fans | - 3,000 |
| S.E. Bight | - Ventilation Fans | - 3,000 |
| Burin | - Ventilation Fans | - 3,000 |
| Various Locations | - B.T.U.'s | - 61,000 |
| S.E. Bight | - Upgrading B.T. Facility | - 1,500 |
| Various Locations | - Baited Trawl Unit | - 15,000 |

(d) General Fisheries Facilities - provides for the construction and upgrading of small fresh and saltwater systems to fish handling facilities, the extension of power services to

various facilities, miscellaneous upgrading of facilities not covered under other sub-heads, and the supply and installation of equipment in the Marine Service Centres and community stages. Projects carried out under this sub-head in 1985-86 were:

| | | |
|---|---|---|
| Makkovik | - 100 Rnt Logs | - $1,200 |
| Hearts Content | - Marine Haultou | - 15,678 |
| Bonne Bay | - Washroom Addition | - 10,127 |
| Kings Cove | - Purchase of Land | - 1,000 |
| Grates Cove | - New Slipway Toe | - 25,000 |
| Red Head Cove | - New Slipway Toe | - 22,065 |
| Shoe Cove | - Waterline | - 7,181 |
| Upper Island Cove | - Waterline to Stage | - 1,000 |
| Nippers Harbour | - Concrete Slab | - 6,000 |
| Forteau | - Water Line Hook-up (Scallop Plant) | - 2,081 |
| Fox Harbour (Lab.) | - Install. of Deep Well Pumping System | - 500 |
| Hearts Content | - Marine Railway Upgrading | - 63,545 |
| Port Saunders | - Sewer Line Extension | - 3,500 |
| Harbour Breton | - M.S.C. Washroom Facilities | - 17,398 |
| Brig Bay | - Purchase of Property | - 55,000 |
| Lark Harbour(Little Point) | - Purchase of Land | - 2,000 |
| Mary's Harbour, Lab. | - Fresh Water Supply | - 2,500 |
| Cartwright | - M.S.C. Storage Area Exp. | - 59,017 |
| Southern Harbour | - Electrical Upgrading M.S.C | - 10,000 |
| Charlottetown | - Elec. Upgrading of Slipway | - 2,500 |
| Shoe Cove | - Water Supply to Stage | - 3,500 |
| Isle Aux Morts | - Storage Area Drainage | - 1,300 |
| Winterhouse Brook | | |
| Bonne Bay | - Slipway Upgrading | - 9,500 |
| Lark Harbour | - Purchase of Land | - 1,500 |
| Wesleyville | - Welding Exhaust System | - 5,000 |
| Durrells | - Sawdust Exhaust System | - 6,000 |
| Port aux Basques | - Purchase of Land | - 1,800 |
| Isle Aux Morts | - Purchase of Property | - 31,100 |

(e) Marine Service Centres - provides for the construction of new Marine Service Centres, purchase of new straddle crane equipment and the upgrading of existing facilities. Projects carried out under this sub-head in 1985-86 were:

| | | | |
|---|---|---|---|
| Green Bay | - | M.S.C. (Phase (1)) | - $50,000 |
| Green Bay | - | M.S.C. (Phase (3)) | - 150,000 |
| Green Bay c/o | - | M.S.C. Building | - 1,200,000 |
| Green Bay | - | M.S.C. (Phase (2)) | - 1,000 |
| Green Bay | - | Electrical Power | - 1,400 |

(f) Fisheries Access Roads - provides funding to construct and upgrade access roads to public fisheries facilities throughout the Province. Projects carried out under this sub-head in 1985-86 were:

| | | |
|---|---|---|
| Fiscells | - Upgrade Access Road | - $500 |
| McKay's (Barachois Beach Rd.) | - Upgrade Access Road | - 500 |
| Highlands (Butter Brook) | - Upgrade Access Road | - 600 |
| Coombs Cove | - Access Road | - 5,000 |
| Jacques Fontaine | - Upgrading Access Road | - 5,000 |
| St. John's Bay | - Upgrading Access Road | - 1,000 |
| Bellevue | - Access Road Upgrading | - 500 |
| Southern Harbour | - Access Road Upgrading | - 305 |
| L'Anse Aux Meadow | - Access Road | - 2,750 |
| Crabbes River | - Access Road Upgrading | - 2,500 |
| Biscayne Cove | - Access Road Upgrading | - 3,000 |
| Pie Duck Cove | - Access Road Upgrading | - 6,500 |
| Gaskiers | - Access Road Upgrading | - 500 |
| Salmon Cove | - Access Road Upgrading | - 7,000 |
| St. Mary's | - Access Road Upgrading | - 5,000 |
| Harbour Beach (Highlands) | - Access Road Upgrading | - 3,000 |
| Bonne Bay | - Access Road Upgrading | - 3,100 |
| L'Anse au Diable | - Access Road Upgrading | - 4,373 |
| Pie Duck Cove | - Access Road Upgrading | - 1,300 |
| Biscayne Cove | - Access Road Upgrading | - 1,000 |

| | | |
|---|---|---|
| Belleoram | - Upgrade Access Road | - 1,500 |
| Gaskiers | - Access Road Upgrading | - 7,500 |
| Job's Cove | - Upgrading of Access Road | - 5,000 |
| Bonne Bay | - Access Road Paving | - 8,500 |
| Crabbe's River | - Access Road | - 6,000 |
| Picadilly | - Access Road Improvement | - 10,300 |
| Castor River South | - Access Road | - 1,300 |
| Southern Harbour | - Access Upgrading | - 550 |
| Mt. Arlington Hgts. | - Access Road | - 5,000 |
| Mary's Harbour | - Access Road | - 3,255 |
| Long Cove Pond | - Access Road to Wharf | - 6,000 |
| Chapel Arm | - Fishermen's Landing Fac. | - 5,000 |
| Mt. Arlington Hgts. | - Access Road | - 5,000 |

(g) Extension of Electrical Services - provides funding for a cost-shared program (Government and Industry) to extend three phase power to fish-handling facilities throughout the Province. The following projects were carried out under this sub-head in 1985-86:

| | | |
|---|---|---|
| Highlands | - Extension of Power | - $2,200 |
| Lumsden South | - Extension of 3 Phase Power | - 23,150 |
| Southport | - Extension of 3 Phase Power | - 18,650 |

There were 99 grants provided in the 1985/86 fiscal year under the grants sub-head. These grants were provided to fishermen's committees, development associations, etc. to assist in the purchase of materials and special services to aid in the completion of various facilities. The grants normally are for $3,000 or less and are provided only after the agency has obtained its main funding from other sources. These grants cannot provide any funding towards the cost of labour.

There were 110 projects carried out under the maintenance and repair sub-head in the 1985/86 fiscal year. Under this sub-head all departmental facilities are maintained and repaired as the need arises, and pending the availability of funds.

Under the professional services sub-head there were 103 contracts issued to various consulting, surveying, appraisal and diving firms during the 1985/86 fiscal year. These professional services provide preliminary engineering services to plan future cost-shared programs and to carry out engineering and other required specialty services.

FACILITY OPERATIONS DIVISION

The Division is accountable for the management/leasing/ operation and maintenance of all Provincially owned fish handling and support marine facilities. It is composed of two (2) main sections - Facility Operations, and Property Management; and is staffed by a compliment of seventy-nine (79) full and part-time/ seasonal/casual employees.

The Facility Operations section is directly responsible for the day to day delivery of a variety of services to the fishing industry at large in relation to the operation of twenty-one (21) marine service centres, three (3) marine railway haulouts, and four (4) regional ice making facilities. These services include the haulout, launch, and storage of fishing vessels (primarily longliner-type), and making available inside heated accommodations for maintenance and repair work. A variety of associated woodworking/shop equipment is at the fishermen's disposal as well as a good stockroom of repair materials. Ice is also sold to the industry at larage at a very reasonable price. A unique supply and service depot is operated in Labrador accommodating the needs of the transient fishing fleet. Such basic services as washroom, shower, and laundry facilities are provided along with the sale of fuel and ice as required. A staff of sixty-nine (69) full and part-time employees delivers the above noted program. For the 1985/86 fiscal year the annual operating budget totalled $5,300,000 with generated revenues of $2,500,000. The number of properties administered was 280 valued at $40,000,000.

The Property Management section is directly responsible for the leasing of Departmental facilities to the private sector, formalization of details involved wiht the-lease/purchase of specific facilities, delivering an intensive maintenance and repair program along with the operation of five fish plants in Northern Labrador. A staff of nine (9) full-time employees is required to deliver these programs along with a seasonal staff of two hundred (200) plant workers in Labrador. Close liaison is undertaken with the Engineering Division in respect to the maintenance of facilities.

For the 1985/86 fiscal year the annual operating budget totalled $5,300,000 with generated revenues of $2,500,000. The number of properties administered was 280, valued at approximately $40,000,000.

In detail the following outlines the activities of the Division in a sectional format:

## 5.2 FACILITY OPERATIONS

### Marine Service Centres

The marine service centre program has now been expanded to twenty (20) centres (the latest one located at Triton) and divided into four (4) distinctive regions, each region managed by a regional supervisor. The following briefly denotes each region along with other statistical information:

In addition to the fact that 842 vessels were actually stored on the centres for a period of time, there were, nevertheless, approximately 1,800 individual handlings of vessels. (see next page)

| M.S.C. | Ice Making Capacity | Lift Capacity | Storage Capacity | 1985 Storage | Total Revenues |
|---|---|---|---|---|---|
| **Northern Region** | | | | | |
| Cartwright | N/A | 60 ton | 15 | 15 | $ 19,293.12 |
| L'anse au Diable | N/A | 50 ton | 55 | 41 | 18,426.41 |
| Flowers Cove | N/A | 50 ton | 80 | 51 | 35,721.07 |
| Englee | N/A | 50 ton | 70 | 68 | 43,578.89 |
| Port Saunders | 45 tons | 70 ton | 150 | 78 | 164,410.18 |
| Port au Choix (Railway Haulout) | | 50 ton | N/A | N/A | 296.00 |
| **Eastern Region** | | | | | |
| Durrell | 30 tons | 50 ton | 120 | 86 | $ 69,734.18 |
| Fogo Island | N/A | 50 ton | 70 | 57 | 43,235.79 |
| Wesleyville | N/A | 50 ton | 32 | 32 | 35,203.92 |
| Bonavista | 30 tons | 70 ton | 64 | 64 | 53,352.38 |
| Harbour Breton | N/A | 50 ton | 21 | 14 | 11,804.28 |
| **Avalon Region** | | | | | |
| Old Perlican | 30 tons | 50 ton | 62 | 62 | $ 44,243.52 |
| Harbour Grace | N/A | 70 ton | 90 | 81 | 40,422.71 |
| Port de Grave | N/A | N/A | N/A | N/A | 63,360.34 |
| Admirals Beach | N/A | 50 ton | 35 | 28 | 17,122.83 |
| Southern Hr. | N/A | 50 ton | 100 | 25 | 19,561.78 |
| Southport (Railway Haulout) | | 50 ton | N/A | N/A | 922.90 |
| Hearts Content (Railway Haulout) | | 50 ton | N/A | N/A | 308.16 |
| | Ice Making Capacity | Lift Capacity | Storage Capacity | 1985 Storage | Total Revenues |
| **Southwest Region** | | | | | |
| Isle aux Morts | N/A | 100/50 ton | 50 | 48 | $ 80,896.42 |
| Burgeo | N/A | 50 ton | 7 | 0 | 4,593.75 |
| Bonne Bay | N/A | 50 ton | 75 | 31 | 16,731.67 |
| La Scie | N/A | 50 ton | 35 | 35 | 47,475.81 |
| Triton | N/A | 150 ton | 55 | 26 | 16,440.00 |
| Total | 135 ton/day | N/A | 1186 | 842 | $847,136.11 |
| Labrador Barge - sale of goods and services | | | | | $ 39,000.00 |
| | | | | Grand Total | $886,136.11 |

MARINE SERVICE CENTRES

## Derelict Vessel Problem

During 1985, a concerted effort was made to deal with the abandoned/derelict vessels which could be found on most of the marine service centre sites. With the full co-operation of the Department of Justice and the Fisheries Loan Board the problem was addressed. At the beginning of 1985 there were about sixty-six (66) boats that had been abandoned on the sites. By the end of 1985 the number had been reduced to six (6). The sixty (60) boats that were removed were either repossessed and subsequently sold by the F.L.B., repossessed and scrapped by the Department and F.L.B., or scrapped by the Department.

This particular problem is an ongoing concern and will hopefully be kept to a minimum from henceforth. It is continually monitored and addressed on a twelve (12) month basis.

## Property Management

The Department of Fisheries owns and administers a large number of properties within the Province. The following is the inventory of facilities as of December 31, 1985:

| Number | Type of Facility | Value |
|---|---|---|
| 21 | Marine Service Centres | $20,575,000.00 |
| 4 | Regional Ice Plants | $ 1,475,000.00 |
| 56 | Baited Trawl Units | $ 1,439,000.00 |
| 50 | Fish Plants | $ 6,765,500.00 |
| 92 | Community Stages | $ 3,851,300.00 |
| 40 | Slipways | $ 438,500.00 |
| 4 | Marine Haulouts | $ 195,000.00 |
| 8 | Gear Sheds | $ 345,000.00 |
| 4 | Misc. | $ 2,070,000.00 |
| 279 | TOTALS | $37,154,300.00 |

This Department also owns and maintains a number of pieces of mechanical equipment throughout the Province which includes generators, ice making machines, baited trawl units, and water pumps.

Up until last year, the Department did not keep an accurate account of all its mechanical equipment. This section of the Facilities Division initiated an attempt to prepare such listings, which it is envisioned to include serial numbers and approximate values.

Ice Machines

During this past year a complete listing was formalized of all ice machines which now include such information as: size and type, model number, coolant type, phase, voltage, compressor type, compressor serial number and model number, as well as the location of each machine. The latest listing of ice machines shows that the Department owns fifty-seven (57) machines which are located in thirty-six (36) centers throughout the Province:

Baited Trawl Holding Units

These facilities are constructed for the exclusive use of fishermen and are used as chilled storage areas in which baited trawl lines can be stored for a period of time. At the present time, the Department owns fifty-six (56) of these units, 5 of which were constructed in 1985.

Legal Surveys

1985 marked a beginning for the Department in a number of areas with regard to legal land surveys. It was discovered that a great number of Departmental facilities were constructed on properties which were either, not owned by the Department, or some confusion existed as to the ownership and control.

This section began a program of file searches and communication with the Department of Public Works, Real Estate Services Division, in an attempt to gain a better control of Departmental facilities. A listing of all unsurveyed properties is being prepared.

In total fifty-four (54) legal surveys were commissioned and completed in 1985 at a cost of $84,000.00

Expropriations

In conjunction with the thrust towards surveys the expropriation of property is an integral part of this over-all process. During 1985, fifty-four (54) expropriations were undertaken in conjunction with the Dept. of Public Works and Services (Real Estate Services Division).

Maintenance of Facilities

The maintenance budget for 1985 totalled $400,000 and, for the most part, is expended on all non-leased facilities. The Department is, nevertheless, obliged to spend funds on leased facilities when it has been determined that upgrading work is required. All maintenance and repair work on these facilities, however, are the sole responsibility of the lessee.

Leasing

As of December 31, 1985, sixty-one (61) facilities were leased to the private sector; forty-two (42) of these leases were either begun or renewed during the 1985 year. Leasing revenues amounted to $350,000.

In total (to the end of 1985) there were 24 appraisals undertaken over the last 3 years with 7 facilities being disposed of in 1985.

Northern Labrador Fish Plants

The Department of Fisheries operates five (5) fish plants in Northern Labrador three of which now have refrigeration equipment.

i) Makkovik plant is a registered processing plant, with ice making capacity of approximately 13 tonnes per day and blast freezing facilities. The storage capacity is 100,000 lbs. of frozen product while the freezing capacity is 8,000 lbs. per 24 hours. Saltfish is also processed in a salting shed built especially for this purpose.

ii) Postville plant is an unlicensed building and serves mainly as a buying station for salmon and char. Some pickling is done if transportation can't be arranged on a timely schedule. There is also a small amount of salt cod produced at times.

iii) Hopedale plant, like Postville, is operated in conjunction with Makkovik. The plant consists of two buildings, one is used as a receiving, holding unit while the other is used for saltfish production. One building is equipped with a six ton ice making machine and is a registered plant.

v) The Nain plant is a registered operation and consists of four buildings. One is a receiving and storage area, another is a processing area and a third is a saltfish storage area and the fourth is a cold storage. It has ice making (13 tonnes per day) and blast freezing equivalent to Makkovik. The cold storage capacity is 75,000 lbs.

B) The normal operational seasonal for all the plants is from the opening of the salmon and char fishing season until the fishermen quit in the fall. In 1985, Makkovik started production on July 6 and with the take-over of the plant by Torngat Fish Producers Co-op on September 1 remained in production until late in November. The Nain plant started production on June 28 and remained in production until October 14.

C) The employees at Postville and Hopedale paid through our Makkovik plant, are included in the Makkovik figure while employees at Davis Inlet are paid by our Nain plant.

| | 1985 |
|---|---|
| Makkovik Employees | 110 |
| Nain Employees | 75 |
| | 185 |

## 6.0 INDUSTRY SUPPORT SERVICES BRANCH

The Industry Support Services branch incorporates the Harvesting Operations, the Processing Operations Division and the Marketing Services Division.

### 6.1 HARVESTING

A. MIDDLE DISTANCE LONGLINE FISHING

The Department of Fisheries has undertaken initiatives throughout 1985 to develop a middle distance longline fishery. This technology refers primarily to vessels between 90' x 120' that use automated longlines and fish up to 200 miles off the coast.

The Department's 90' autoliner, the "Glen Clova" had another successful year with landings in excess of 2 million lbs. of cod in 27 fishing trips from early April to late November of 1985. This was the third year of operation for this vessel which was acquired by the Department to evaluate the viability of the longliner fishery. The vessel was again operated under lease to Captain James Short of St. Anthony.

B. RESOURCE DEVELOPMENT

- Eels

In 1985, ten eel fyke nets were constructed by Department personnel and issued to fishermen in Conception Bay, (2) Placentia Bay, (2) Trinity Bay (4) and on the Southern Shore (2). These were areas relatively new to the eel fishery and although catches were low, a great deal of valuable experience was accumulated.

Overall, total eel landings in 1985 were similar to previous years. Catches of "silver" eels in central and eastern Newfoundland reached approximately 46,000 lbs. Catches of "yellow" eels taken in St. Georges - Stephenville area were approximately 20,000 - 25,000 lbs.

Halibut Gear - Hermitage Bay

The Department of Fisheries purchased 150 lines of halibut gear c/w the new 'circle' hook and entered into an agreement with two (2) fishermen from the Hermitage area to utilize this gear. Fishing began in January 1985 but due to inclement weather and increased cod catches no concentrated effort on halibut occurred until March. In the period from March until June, 1985, approximately 20,000 lbs. of halibut were landed. The Fishermen were very satisfied with these results and have now purchased the gear from the Department.

Lumpfish

The Department originally implemented the development program for lumpfish in 1977.

In 1985, 2 small boat fishermen in Francois and Greens Harbour, Trinity Bay, purchased ten nets to begin lump fishing in early May. Results from both locations were positive as approximately 6,000 lbs. of roe was taken from each community. This fishery provided a boost in earnings in a slow part of the season. The overall total for roe production in Newfoundland in 1985 was 1,919,757 lbs.

Cyalume Lightsticks

These are a mixture of chemicals contained in a plastic tube or vial which when activated release a bright flourescent light which seem to attract fish. In 1985, the Department purchased 60 of these lightsticks to study their effectiveness when attached to longline gear. A Southern Shore vessel operator tested these lights and found his catches improved somewhat in deeper water but much more research is needed to draw conclusions from this project.

Scallop Survey - Bonavista and Conception Bays

The Department assisted a 65' scallop dragger operator by cost sharing expenses associated with a short survey of Bonavista and Conception Bays. This assistance took the form of the Department contributing to defray fuel costs during the exploration period. Tows were made on eight separate days in Bonavista Bay and 2 days in Conception Bay. No new scallop beds were located.

C. FISHING METHODS AND GEAR

Cod Trap - Square Mesh Drying Twine

Undersized cod trap fish has been a problem for both fishermen and buyers for many years. Studies carried out by DOF and DFO have shown that increasing the mesh size does improve escapement but also increases meshing. As a result of the improved escapement using square mesh cod ends, a bunt section of a cod trap was replaced with square mesh webbing. The cod trap was set in a berth in Port Au Gaul which is in an area well known for small fish. Unfortunately, the landings in that area were too low to give any definite conclusions and the results were affected by the diamond mesh webbing in other areas of the trap. The following season a complete trap were constructed of square mesh webbing and set in a berth in St. Vincent's, St. Mary's Bay. Although catch rates were excellent, the length frequency measurements of catch did not show any significant improvement in the escapement of undersize fish.

Square Mesh Codend Study

During the annual northern cod fishery there is a considerable amount of undersized cod fish caught, especially in large tows by the offshore trawlers fleet. In an effort to improve the escapement rate a study was done aboard the F.P.I. trawler, Zandvoort, on a square mesh codend. The results showed an improvement in the size of catch taken with the square mesh. A report has been completed and there are no ongoing activities relating to this project. Since the project has been completed we

have provided technical assistance and in the construction of this codend to F.P.I. and fishing gear supplies.

Kevlar Trawl Offshore Trawlers

Fuel costs are a major concern for the deep sea trawler fleet. Based on the results of the fishing trials using a kevlar trawl aboard an inshore trawler a joint project has been initiated with F.P.I. and Dupont. The aim of the project is to determine if kevlar netting can be used to lower fuel costs for the F.P.I. fleet. A trawl was constructed and preliminary fishing trials carried out in June of '85. The F.P.I. trawler used at that time could not accommodate the recommended door size for the net and, therefore, no advantages concerning fuel consumption was observed. A more detailed trial is planned for '86 during which a series of measurements will be made on the kevlar net and a comparative net normally used aboard a deep sea trawler.

Midwater Trawling - Gulf Red Fish - Inshore Trawlers

This project was initiated jointly with DFO in Corner Brook to assess the midwater trawling technique aboard inshore trawlers fishing red fish in the Gulf Region. The first fishing trials were done in the spring of 1985 but ice conditions prevented any conclusive results at that time. Succeeding trials were planned for July-August of 1985 and January-February of 1986, but on both occasions the vessel owner declined to resume the project. The trials planned for January-February were under charter agreement with DFO.

The installation of midwater trawling gear on board the project vessel is very costly and for this reason the Department has delayed removal. If the Department of Fisheries is to utilize the considerable investment in equipment that we have made in the project so far, we must consider the removal of the equipment and installation on board another vessel. Because of the recent

changes to DFO, Gulf Region, we can no longer count on their contribution to this project.

## Square Mesh Codend - Port Aux Basques Fishery

During the winter fishery in the Port Aux Basques area the catches of cod by the inshore trawler fleet has at times had high percentages of fish under 18" in length. To reduce the numbers of small fish, the Department designed and constructed a square mesh codend for use onboard an inshore trawler. A series of fish length frequency measurements were recorded from the catch using the square mesh codend and a comparative diamond mesh codend. The results obtained show that the average size of the fish from the square mesh codend is larger than that of the diamond mesh and the number of fish under 18" is reduced significantly. As the fish were sold round and unculled there was no incentive for fishermen to use the square mesh codend to reduce the amount of catch under 18". A report has been compiled and submitted.

## Boxing Fish - Inshore Trawlers

It has been known for some time that fish stored in boxes as opposed to bulk storage has a better overall quality. The Department did a preliminary project by equipping an inshore dragger with fifty boxes and grading the fish stored in boxes and the fish stored in bulk storage dockiside. Because the fish was landed within 18 hours of being caught the differences in the grades of the two storage methods was relatively little. A report has been compiled and submitted.

## Scallop Dredge Experimental Gear

Fishermen in many areas of the Province have requested a loan of scallop gear to determine if there are enough scallops to be fished commercially in their area before they have to outfit their boats. In order to assist these fishermen, the Department purchased 8 sets of scallop gear and placed 2 in each of 4 areas

of the Province from which requests have been received. Fishermen can use the dredges for a two week period in which time they can determine if they can undertake a viable scallop fishery before purchasing their own equipment. It is expected that this program will be used as much or more than last year by interested fishermen.

Technical Assistance

The department continues to offer technical support to the industry as well as financial assistance for specific proposals. Individual requests were considered on their own merit.

Lobster Pot/Cod Trap Parts Program

In the event of loss of equipment due to storms, ice or whale damage, the Department assists fishermen by maintaining a bank of gear for sale. This gear is stored at several locations throughout the Province. Fishermen who have suffered a loss should contact their regional field officer who will determine if they are eligible for assistance under this program.

D. VESSEL DEVELOPMENT

Vessel Design Services

This project is ongoing, designed to supply technical information and assistance to fishermen in selecting appropriate vessel designs for different fishing operations. Over the past few years the Department of Fisheries has developed a file of vessel designs ranging in sizes from 19/65 feet. The Designs are made available upon request.

In 1984/85 the Department added three (3) new designs to its file. Two (2) 45 foot wooden longliner/seiners, wheelhouse forward and wheelhouse aft arrangements and a 50 foot wooden longliner/gillnetter.

## Outriggers for 37 ft. ABCO vessel

After several vessels of this type were purchased by fishermen, it was discovered that the vessels had a very quick roll, making it difficult to work on at sea. In an attempt to improve the sea keeping characteristics of this type of vessel, the department designed, constructed and installed a set of outrigger stabilizers on one vessel. The results are positive, however, negative points were increased in fuel consumption and difficult to operate when handling gillnets. They are still being used by the owner when longlining.

## Vessel Fuel Efficiency Program

The objective of the project is to demonstrate to fishermen fuel efficient handling of their vessels. The project involved the installation of 10 speed log/fuel meter systems on different type vessels.

The program was cost shared under a CREDA agreement.

In general, the skippers involved in the project are very acceptable to the use of the systems. In most cases the meters have proven beneficial in demonstrating fuel savings by using proper throttle contol.

## 19 Foot Cold Molded Boat

Project objective was to demonsrate to the boat building industry innovative techniques in the construction of wooden vessels. To do this the department set up a pilot project to construct a prototype 19 foot boat using COLD MOLDING technology. The boat has been used in the industry by two (2) fishermen. One involved in the lobster fishery and at present a fisherman involved in the trap fishery. In each case, the boat's performance has shown excellent prospects in both design and construction. However, construction costs are high and this type

of construction would not be able to compete with present day fibreglass construction techniques having comparative qualities.

## E. AQUACULTURE

During 1985, the Department of Fisheries was actively involved in the development of finfish and shellfish aquaculture in the Province. With finfish, the main focus of attention was directed towards salmon culture. The salmon overwintered in sea cages on the Burin Peninsula succumbed to low winter water temperatures. Bay d'Espoir area was the focus of cage culture trials during 1985. Salmon smolt (1400) from the Exploits River system were transferred into two sea cages at St. Albans and fed during the year. Significant growth rates were obtained up to December when the cages were allowed to freeze into the ice. From the original 1400 smolt, 239 salmon were successfully overwintered in suitable water temperatures.

Other salmon growout trials were conducted at an onshore tank at Holyrood Pond utilizing pumped water from the pond. Smolt from the Exploits River system were transferred to the tank in July, but due to an electrical failure, all smolt died a month later. The trials continued using salmon overwintered in a sea cage the previous year.

The only rainbow trout farm in the Province was taken over by a commercial operator from the local development association in 1985. Technical assistance was provided to the new operator by a contractual employee hired by the Department for that purpose. The farm at Hopeall, TrinityBay produced 5,900 kg. of rainbow trout for the season.

With shellfish, the Department introduced a "Mussel Culture Incentive Program" which provided mussel spat collecting gear and growout socking material to groups or individuals around the Province to determine if their area was suitable for mussel culture. Twenty-seven sets of gear were issued during the year.

Scallop culture gear was issued to individuals pursuing this activity in a number of areas. While scallop culture has not reached the economically viable stage, efferts are continuing.

The Department is actively pursuing the potential for arctic char culture on the Island. In this regard, char eggs from the Fraser River in Labrador were collected and incubated at the Marine Science Research Laboratory in St. John's. The char will eventually be placed in sea cages for growout trials.

## 6.2 PROCESSING DIVISION

QUALITY ENHANCEMENT PROGRAM

Purpose: To promote quality initiatives in the fishing and fish processing industies throughout the Province. This is done by providing information to the industry on quality matters, by conducting quality projects with the industry, and by working with industry, government, and outside agencies to develop programs related to quality.

Projects

(1) Northern and Southern Labrador - Projects were carried out to inform fishermen and plant workers on the proper methods of handling fish, to demonstrate Point of Sale Grading, and to monitor quality from point of sale through to the end of the line. The average percentage of Grade A fish as determined by Point of Sale Grading Standards ranged from 59.9 to 75.8 percent for the Southern Labrador communities and from 23.4 to 85.1 percent for the Northern Labrador communities. The main reasons for downgrading were bruising and discoloration, texture, workmanship, and blood clots. The fishermen were given the grading results for their catches and were shown methods for making improvements. This project resulted in a much greater understanding of quality by fishermen and fish plant workers alike.

(2) Point of Sale Grading - Aquaforte and Hants Harbour. These projects were designed to show fishermen and plant workers that proper at-sea handling practices would have a significant positive effect on the Point of Sale Grades received and on the yields and composition of the final packs produced.

(3) Quality Assurance - Placentia. This project was designed to develop and implement a Quality Control Program for a small processing plant. The program monitored and recorded quality

levels on a regular basis throughout the production day. This allowed the quality supervisor to take action and correct problems as they occurred, as-well as provided a permanent record of the quality of the products produced.

(4) Point of Sale Grading - Green Island Brook. This project was carried out to compare the Point of Sale Grade of the split fish with the Canadian Saltfish Corporation Grade of the same fish after salting. A sample of 565 fish was examined and there was found to be a significant difference in the grades received before versus after salting (i.e. Dockside Grades A, B, and C were not directly comparable with Canadian Saltfish Corporations Grades Choice, Standard, and Cullage).

(5) Unloading Systems Project - Southwest Coast. This project was designed to compare the quality of fish before unloading and after unloading using various types of unloading systems and to show the effect of holding this fish for various lengths of time before processing. The results indicate that there was a 15.0 and 2.6 percent decrease in the percentage of Grade A fish during the vacuum and bucket unloading processes respectively. During holding, the vacuum unloaded fish dropped another 8.0 percent, while the bucket unloaded fish dropped by 14.0 percent. As a result of processing, the percentage of Grade A fish increases by 6.0 percent for the vacuum unloaded fish and by 10.0 percent for the bucket unloaded fish.

(6) In-Plant Quality Project - Eric King Fisheries Limited. This project involved designing a Quality Control Program to meet the needs of Eric King Fisheries Limited. It involved developing specifications for the products produced, defining tolerances for each of the possible defects, and devising sampling schemes and reporting procedures for the Q.C. personnel. This Company has continued the use of the Q.C. program and has made major changes to its unloading facilities and filleting line in the interest of quality.

(7) **Parasite Project - Southwest Coast.** This project was designed to measure the current level of parasites in cod from NAFO area 3Pn. It also determined the percentage of parasites which could be detected using visual versus destructive methods.

INDUSTRIAL ENGINEERING AND TECHNICAL SERVICES

The purpose of the initiatives contained in this program is to improve the fish processing industry's viability and market position versus our major competitors through improvements in plant productivity, product quality and yield. This should result in stable if not improved employment levels in the industry, increased economic returns through greater productivity and an improved position in competitive world markets.

(1) A grant was made available to Hazel Industries Limited to assist in the production of a high protein feed utilizing fish off al and potatoes as raw materials in a co-fermentation process. The feed was to undergo subsequent feed and digestability trials at a federal agricultural station in Nova Scotia.

(2) A grant was made available to the Institute of Fisheries and Marine Technology to assist in the purchase of a Surimi pilot line to be used in identifying opportunities for the use of waste products, discards and underutilized species for the production of surimi.

PRODUCT RESEARCH AND DEVELOPMENT

Program Purpose: To develop new seafood products and processing techniques for the purpose of expanding production capabilities and producing a product of added dollar value.

(1) Institution Product Pack: To develop and promote bulk packaged seafood entrees was the focus of this project. Various samples of secondary products were distributed to local institutions and feedback was recorded to determine market

acceptability of these products. Recipes were well received and market studies were to continue into 1986 on the Canadian and U.S. markets.

(2) Cod Roe Analysis: The purpose of this study was to determine the extent of the roe resource in the Southwest coast winter fishery. Samples were analyzed over several weeks for maturity and processing acceptability. Peak period for production was found to be March 5-20th. During that period, yields were highest (2.7%) and maturity was at its prime level for processing.

(3) Saltfish - Product Development: A $30,000 grant was given to a joint project being carried out at the Marine Institute. The project developed new processes and secondary recipes for small-medium sized salt fish. A steering committee is overseeing the R & D work and giving direction to the technical team regarding finished product requirements, etc. The project will continue into 1986/87.

## 6.3 MARKETING SERVICES DIVISION

The Marketing Services Division of the Provincial Department of Fisheries had an active year in 1985-86. As in the previous year, the Division again lead several delegations at major seafood trade shows in North America. Utilizing the Government booth, exhibits were mounted at the Boston Seafood Show, Seafare in Los Angeles, Seafood Expo in Dallas, and Hostex in Toronto. These marketing efforts were rewarded with several of our processors making key market contacts and sales as a result of participation at these shows. The Division was also active in promoting Newfoundland seafood in major hotel chains throughout Canada. An extremely successful Newfoundland Seafood Festival was held in conjunction with the Mayfield Inn in Edmonton. In addition, similar promotions were done with selected hotel chains across Canada.

The Division also worked with other Government Departments such as Tourism in contributing to the Rendez-vous Canada show in Toronto.

It was also active in Market Development. Funds were made available to several Newfoundland processors such as the IFPA to assist them in market development activities. In addition, funding was made available to the Canadian Sealers Association to assist them in their revitalization efforts.

The Division carried out it's seafood donations program, making seafood available to applicable groups or bodies promoting Newfoundland and her seafood resources.

The Fisheries Marketing Assistance Program (FMAP) program of funding to offset travel costs associated with marketing efforts by Newfoundland processors was quite successful. Twenty (20) FMAP's were distributed in 1985-86.

The Division maintained an inventory of recipe booklets, posters, seafood processors directories, and other promotional and informational publications for distribution at trade shows, to schools, to conventions and to the public on a request basis.

The Division maintained a staff of Director, Promotion Specialist and Secretary.

## 7.0 FISHERIES LOAN BOARD

### A. Loan Program

During the year, a total of 699 loans with a total cost and loan amount of approximately $7.8 million and $6.3 million respectively, were approved by the Fisheries Loan Board. The details of the loan approvals are as follows:

| | No. | Loan Amount | Total Cost |
|---|---|---|---|
| Fishing Vessels over 10.668 m. (35 ft.) | 51 | $2,249,000 | $2,975,000 |
| Fishing Vessels under 10.668 m. (35 ft.) | 251 | 1,952,700 | 2,440,000 |
| Engines & other fishing equipment | 396 | 2,048,000 | 2,401,000 |
| TOTAL | 699 | $6,249,700 | $7,816,000 |

Included in the above apprpovals are 11 loans with loan amounts of $1.6 million and total costs of $2.2 million approved under the Bank Loan Guarantee Program. The Bank Loan Guarantee Program provides funding for either the purchase of new and used vessels and equipment, construction of new vessels, or rebuilding of vessels. The vessels financed consisted of three 45 ' vessels, three 55' vessels, one 58' vessel, two 60' vessels and two 65' vessels. Funding for all loans in excess of $50,000 is obtained by fishermen through the Chartered Banks with a Provincial Government guarantee and the Board subsidizes the interest on these loans where the interest rate is in excess of the rate charged by the Board. All loans less than $50,000 are processed and funded directly by the Fisheries Loan Board.

B. Bounty Program

During the year the Board also approved direct grants totalling $743,000 to further assist fishermen in the construction, rebuilding or repairing of 216 vessels. Details of these bounties are as follows:

| | No. | Bounty Amount |
|---|---|---|
| Bounties to assist new construction of small boats 10 tons and less underdeck (usually 35 feet and under) | 199 | $280,000 |
| Bounties to assist new construction of large boats over 10 tons underdeck (usually over 35 feet) | 5 | 305,000 |
| Bounties to assist the rebuilding or repairing of large boats over 35 feet and 8 yrs. or older | 12 | 158,000 |
| TOTAL | 216 | $743,000 |

C. General

During the year a number of positive changes were made in the Fisheries Loan Board regulations. These changes were in response to concerns expressed by fishermen and are highlighted as follows:

(i) The Board is now permitted to refinance loans for fishing vessels which were made by other financial institutions.

(ii) Under special circumstances, the Board is now permitted to refinance loans made under the Bank Guarantee Program where these loans have been paid below $50,000.

(iii) Effective June 1, 1985, all loans originally approved with interest rates of 10% and 12% had their interest rates lowered to 8 1/4%.

(iv) Banks were advised by Government that if loans approved under the Bank Loan Guarantee Program are in arrears and they have no recourse except to repossess them, they must approach Government in each case before taking this action. Officials from the Board and the Departments of Fisheries, Finance and Development review particular cases and report to Cabinet. Cabinet may decide to offer special help which could include giving a special guarantee on the loan, paying the interest arrears, or buying out the entire loan from the bank. If Government does not offer further assistance, then the bank may act in the normal manner, which will be to repossess the boat.

(v) The Government guarantee on loans approved under the Bank Loan Guarantee Program was increased from 10% to 20% and applies to all the outstanding loans.

(vi) The Fisheries Loan Act was amended so that assignment of catch receipts collected by processing companies are held in trust prior to submitting to the Fisheries Loan Board. This was necessary in order for the Fisheries Loan Board to make a claim to fish processors who are in receivership and which have collected borrower payments on loan accounts under the Assignment of Catch Program, but have not remitted same to Fisheries Loan Board prior to receivership.

Loan Board officials continued to attend Department of Fisheries regional meetings that were held at various locations throughout the Province during 1985. As well, Board officials met with officials of the Nova Scotia Fishermen's Loan Board in Halifax during September.

Participation at Marine '85 held in Gander during October was at a similar level to that of 1984. The Board's programs were

presented in a slide show and the funding distribution for loans and bounties was reported in graphical displays.

Mrs. Judy Symonds of Carbonear was appointed as the first female member of the Fisheries Loan Board. Total membership on the Board was increased to nine people in October 1985.

The Minister announced Government's approval of a three year "pilot project" for the board to lease up to 10 repossessed boats. The program was put in place as (a) some fishermen often lose their boats and they need a replacement boat quickly and (b) the Board felt it could recover more from leasing selected boats than from repossession and public sale.

Government announced an installment deferral program in order to help fishermen affected by the poor results of the 1985 inshore fishery on the North East Coast and Labrador. A special application form was made available so that fishermen affected by the fishery failure could apply to the Board to have the 1985 principal installment on their loans deferred. This program works by adding one year to the existing loan term. Although the program was designed primarily for East Coast and Labrador fishermen, any fishermen could apply and the case dealt with on an individual basis.

## D. Outlook for the 1986/87 Fiscal Year

It appears that the level of funding to be provided by the Board in the next fiscal year will be approximately the same as it was in the 1985/86 fiscal year. No significant shift in the distribution of loans and bounties is expected.

The monitoring of accounts is continuing in order to ensure continued loan repayments. Any number of special arrangements may be examined by the Board's Collection officials, where individual situations warrant it.

The inshore fishing sector of the Provincial economy will continue to be provided with Government support through the programs of the Fisheries Loan Board.

## 8.0 FISHING INDUSTRY ADVISORY BOARD

The F.I.A.B. became involved in most aspects of the industry through its three on-going programs:

### Harvesting

In a joint effort with the Department of Fisheries and Oceans, F.I.A.B. interviewed a cross-section of inshore fishermen compiling costs and earnings data of the previous fishing season as part of the shared annual harvesting economic survey. Preliminary results were produced from the raw data and various analyses were ongoing.

### Processing

The annual collection of data on production yields, costs and sales was carried out through surveys and plant visits. Efforts were made to analyze the average costs of the more topical species, in particular.

### Marketing

F.I.A.B. continued to be a source of current market information on market prices and trends. The monthly market update was again produced.

In keeping with the interest and development of aquaculture projects in the province, the Board saw the need for market information in that field and introduced an internally prepared market update on aquaculture.

In addition to the regularly produced update, specific requests from Government and industry were answered in either written or oral responses.

The seasonal close monitoring of the lobster prices paid to Newfoundland fishermen took place in conjunction with the close monitoring of prices received by lobster buyers in the Boston marketplace.

Beyond the work of the permanent staff, there was that of the Board Members. The members met on an average of every second month discussing the work of the Board and offering input into current fishery issues.